SITE: Florida Phosphate
BREAK: 17.8
OTHER: v.27

Radiological And Occupational Health
Post Office Box 1480
Winter Haven, Florida 33880

December 21, 1978

E. Edward Holloway, Jr., MAI Real Estate Appraiser And Consultant 2925 Sanian Ranch Drive Lakeland, Florida 33801

Dear Mr. Holloway:

After reviewing the readings taken on your property we can arrive at the following conclusions. The area outlined in red with red cross bars (see enclosed map) has an average gamma reading of approximately 20 uR/hr (microroengten per hour) with a low of 10 uR/hr and a high of 50 this area has been designated as a multi-use residential area. If we compare this land with land on which houses have been built and that has been previously tested by the State of Florida and the U.S. Environmental Protection Agency then we can come to the following conclusions:

- 1. If the type of homes built in the above mentioned area is of the slab on grade construction then approximately 42% of these homes will have indoor radon daughter working levels above .02 wi.
- 2. And approximately 33% will be above .03 wi.

The reason for citing the above two figures of .03 and .02 wl is that the U.S. Environmental Protection has not as of yet decided which of these two guidelines it will recommend for adoption by the State. In either case though, a large percentage of homes built in this area will have a high indoor radon daughter working level. I must also point out the fact that this area has been previously mined and this will necessitate some further reciamation such as leveling spoil piles and filling ravines if homes are to be built. This could very well change the average Gamma level in this area depending on how the land is reclaimed. I have enclosed for your use a copy of a report by the Environmental Protection Agency concerning alternate construction techniques and methods of reducing radon daughter levels in new structures. The use of Polymeric Sealants has been considered insufficient and it should be disregarded as a control method.



## U.S. EPA REGION IV

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Since there will be no residential structures built on the water and land recreation area there should be no problem with its use.

The remaining portion of the project should be suitable for its proposed multi-use residential and commercial areas. The average gamma level for this area was approximately 7 uR/hr which is about background for the State as a whole. The only problem that might arise is if there are phosphate matrix deposits that come close to the surface under residential structures, in which case we would be glad to test this for you when a lot layout is developed.

Many of the terms and an explaination of the problems of Radiation on Phosphate lands is in the enclosed booklet. If you have any further questions do not hesitate to contact me.

Sincerely,

Harlan W. Keaton Public Health Physicist II

HWK/rch

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